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FILE 'HOME' ENTERED AT 17:42:45 ON 23 SEP 2008

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FULL ESTIMATED COST

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FILE COVERS 1907 - 23 Sep 2008 VOL 149 ISS 13 FILE LAST UPDATED: 22 Sep 2008 (20080922/ED)

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DALL IS NOT A RECOGNIZED COMMAND

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ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
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     143:16219
DN
ED
     Entered STN: 03 Jun 2005
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TN
     Akashi, Nobutaka; Shirota, Yasuhiko
PA
     Bando Chemical Industries, Ltd., Japan
SO
     PCT Int. Appl., 29 pp.
     CODEN: PIXXD2
DT
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LA
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IC
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     73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
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     Section cross-reference(s): 22, 76
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[I,A]; H01L0051-00 [I,C*]; H01L0051-00 [I,A]; H05B0033-14 [I,C*]; H05B0033-14 [I,A]; H05B0033-22

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 US 20070066848 IPCI
                       C07C0211-54 [I,A]; C07C0211-00 [I,C*]; H01L0051-54
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                 NCL
                        564/434.000; 257/040.000; 257/E51.051; 313/504.000;
                        313/506.000; 428/690.000; 428/917.000
AB
    The invention relates to an organo-electronic functional material
     comprising a tris(arylamino)benzene of the general formula: (I) (wherein A
     and B are groups of the general formula: (II) (in which R is a C1-C6 alkvl
     or a C5 or C6 cycloalkyl; and n is 0, 1, 2 or 3), which groups may be
     identical with or different from each other), and that in a cyclic
     voltagram, the organo-electronic functional material exhibits a deviation
     of peak current of 50-cyclic curve, measured at a sweep rate of 20 mV/s,
     falling within ±10% of the average of peak current. This organo-electronic
     functional material has photo-electron conversion capability, being
     reversible in oxidation-reduction and by itself can form an amorphous film.
     Further, not only is the glass transition temperature thereof high but also
even
     in repeated oxidation-reduction, the change of peak current value is slight,
     ensuring stability. Therefore, the organo-electronic functional material
     can be appropriately used as, for example, a hole transport material in
     various electronic devices including organic electroluminescent devices.
     organo electronic functional material electroluminescent device
ΙT
     Electroluminescent devices
        (organic; organo-electronic functional material and its application for
        electroluminescent devices)
                                      2085-33-8, Alq3
     147-14-8, Copper phthalocyanine
                                                       138143-23-4
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RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Mitsui Toatsu Chemicals Inc; JP 07-33717 A 1995 CAPLUS
(2) Sony Corp; JP 2003178883 A 2003 CAPLUS
(3) Sony Corp; JP 200368470 A 2003
(4) Sonv Corp; JP 200495491 A 2004
(5) Tdk Corp; EP 0611148 A1 1994 CAPLUS
(6) Tdk Corp; JP 07-48974 A 1995
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COST IN U.S. DOLLARS

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http://www.cas.org/support/stngen/stndoc/properties.html

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-8b

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1 85690-41-9/RN]
(185690-41-9/RN)
1 2085-33-8/RN)
1 852641-11-3/BI

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YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

- L2 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 852641-11-3 REGISTRY
- ED Entered STN: 21 Jun 2005

CN 1,3,5-Benzenetriamine, N1,N3,N5-tris(4'-methyl[1,1'-biphenyl]-4-yl)-N1, N3, N5-tris(4-methylphenyl) - (CA INDEX NAME) OTHER CA INDEX NAMES:

1.3.5-Benzenetriamine, N.N', N''-tris(4'-methyl[1,1'-biphenyl]-4-yl)-N, N', N''-tris(4-methylphenyl)- (9CI)

MF C66 H57 N3

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 2 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN

RN 185690-41-9 REGISTRY

ED Entered STN: 04 Feb 1997

CN 1,4-Benzenediamine, N1-2-naphthalenvl-N4,N4-bis[4-(2-

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1,4-Benzenediamine, N-2-naphthalenyl-N',N'-bis[4-(2naphthalenylphenylamino)phenyl]-N-phenyl- (9CI)

OTHER NAMES:

2TNATA

4,4',4''-Tris[2-naphthyl(phenyl)amino]triphenylamine CN

4,4',4''-Tris[N,N-(2-naphthyl)phenylamino]triphenylamine

MF C66 H48 N4

COM

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, USPATZ, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 184 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 187 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- L2 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 138143-23-4 REGISTRY
- ED Entered STN: 03 Jan 1992
- CN 1,3,5-Benzenetriamine, N1,N3,N5-tris(3-methylphenyl)-N1,N3,N5-triphenyl-
- (CA INDEX NAME)
 OTHER CA INDEX NAMES:
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- OTHER NAMES:
- CN 1,3,5-Tris(3-methylphenylphenylamino)benzene
- MF C45 H39 N3
- SR CA
- LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, USPATZ, USPATFULL (*File contains numerically searchable property data)

- **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
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- L2 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN

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RN
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- ED Entered STN: 13 Sep 1986
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OTHER CA INDEX NAMES:

1,3,5-Benzenetriamine, N,N',N''-tri-p-tolyl- (6CI) CN

OTHER NAMES:

- 1,3,5-Tris[(4-methylphenyl)amino]benzene
- CN N, N', N''-Tris(p-methylphenyl)-1,3,5-benzenetriamine
- MF C27 H27 N3
- SR CAOLD
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, USPAT2, USPATFULL, USPATOLD

(*File contains numerically searchable property data)

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- 10 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
- L2 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN RN 2085-33-8 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN Aluminum, tris(8-quinolinolato-KN1, KO8)- (CA INDEX NAME) OTHER CA INDEX NAMES:

- CN Aluminum, tris(8-quinolinolato)- (6CI, 7CI, 8CI)
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- CN Aluminum tris(8-quinolinolate)
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CN Tris-(8-hydroxyquinoline)aluminum

DR 11094-99-8, 24731-66-6

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CI CCS, COM

LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, GMELIN*, IFICDB, IFIPAT, IFIUDB, MRCK*, PIRA, RTECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD

(*File contains numerically searchable property data) Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

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7783 REFERENCES IN FILE CAPLUS (1907 TO DATE) 44 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

ANSWER 6 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN

RN 147-14-8 REGISTRY

ED Entered STN: 16 Nov 1984

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OTHER CA INDEX NAMES:

CN 29H, 31H-Phthalocyanine, copper complex

CN 29H, 31H-Phthalocyanine, copper deriv.

OTHER NAMES:

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CN (Phthalocvaninato)copper

CN α-Copper phthalocvanine

CN α-Copper phthalocyanine blue

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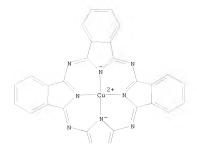
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       EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
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     Other Sources:
                    DSL**, EINECS**, TSCA**
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PAGE 2-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17524 REFERENCES IN FILE CA (1907 TO DATE)

1286 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

17571 REFERENCES IN FILE CAPLUS (1907 TO DATE) 134 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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| FULL ESTIMATED COST | 12.46 | 19.11 |
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ENTRY | TOTAL |
| CA SUBSCRIBER PRICE | 0.00 | -0.80 |

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=> FIL CAPLUS

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FILE COVERS 1907 - 23 Sep 2008 VOL 149 ISS 13 FILE LAST UPDATED: 22 Sep 2008 (20080922/ED)

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=> S L3

T. 4 4 L3

=> DIS L4 1- IBIB IABS YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):Y THE ESTIMATED COST FOR THIS REQUEST IS 11.64 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N:Y

ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2008:156802 CAPLUS

DOCUMENT NUMBER: 148:225225

TITLE: Organic electroluminescent device INVENTOR(S): Kobata, Tomokazu; Akashi, Nobutaka

PATENT ASSIGNEE(S): Bando Chemical Industries, Ltd., Japan SOURCE: PCT Int. Appl., 28pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | | | |
|---------------|--------------------|------|-------------|-----------|-----|------|-----------------|------|----------------|----------------|-----|-----|------|------------|----------|-----|-----|--|
| WO 2008015963 | | | A1 20080207 | | | | WO 2 | 007- | JP64 | 20070720 | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BH, | BR, | BW, | BY, | BZ, | CA, | |
| | | CH, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DO, | DZ, | EC, | EE, | EG, | ES, | FI, | |
| | | GB, | GD, | GE, | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | KE, | KG, | KM, | |
| | | KN, | KP, | KR, | KZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LY, | MA, | MD, | ME, | MG, | |
| | | MK, | MN. | MW. | MX, | MY, | MZ, | NA. | NG. | NI. | NO. | NZ, | OM, | PG, | PH. | PL, | PT. | |
| | | RO, | RS, | RU, | SC, | SD, | SE. | SG, | SK, | SL, | SM, | SV. | SY, | TJ, | TM, | TN. | TR. | |
| | | TT. | TZ. | UA. | UG. | US. | UZ. | VC. | VN. | ZA. | ZM. | ZW | | | | | | |
| | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | |
| | | IS. | IT. | LT. | LU. | LV. | MC. | MT. | NL. | PL. | PT. | RO, | SE. | SI. | SK, | TR. | BF. | |
| | | BJ, | CF. | CG. | CI. | CM. | GA, | GN. | GO, | GW. | ML. | MR. | NE. | SN. | TD. | TG. | BW. | |
| | | | | | | | MZ, | | | | | | | | | | | |
| | | BY, | KG, | KZ, | MD, | RU, | TJ. | TM | | | | | | | | | | |
| JP | 2008 | 0418 | 69 | | A | | | | | JP 2006-213068 | | | | | 20060804 | | | |
| RIT | RITY APPLN. INFO.: | | | | | | | | JP 2006-213068 | | | | 68 | A 20060804 | | | | |
| R SOURCE(S): | | | | MAR | PAT | 148. | 2252 | | | | | | | | | | | |

PRIOR OTHER SOURCE(S): MARPAT 148:225225

ABSTRACT:

The invention relates to an organic electroluminescent device comprising a hole transport layer which contains a tri(p-terphenyl-4-yl)amine represented by a general formula (R1-C6H4-p-C6H4-p-C6H4) (R2-C6H4-p-C6H4-p-C6H4) (R3-C6H4-p-C6H4-p-C6H4)N as a hole transporting agent, where R1, R2 and R3 independently

represents a hydrogen atom, an alkyl group, a cycloalkyl group which may have a substituent, or an aryl group which may have a substituent; and a hole injection layer which contains a hole injecting agent comprising an aromatic tertiary amine having an ionization potential ranging from 5.2 to 5.6 eV. The organic electroluminescent device can operate at a low operation voltage, with high efficiency and at a high luminance.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1129939 CAPLUS

DOCUMENT NUMBER: 143:413605

TITLE: Display element containing amine derivative

INVENTOR(S): Onishima, Yasunori PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GRAPHIC IMAGE:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|------------|-----------------|----------|
| | | | | |
| JP 2005294188 | A | 20051020 | JP 2004-110869 | 20040405 |
| PRIORITY APPLN. INFO.: | | | JP 2004-110869 | 20040405 |
| OTHER SOURCE(S): | MARPAT | 143:413605 | | |

$$\begin{array}{c} \mathbf{A}^2 \\ \mathbf{A}^{1-N} \\ \\ \\ \mathbf{N} \\ \\ \mathbf{A}^{5} \\ \\ \mathbf{A}^{6} \\ \end{array}$$

ABSTRACT:

Disclosed is a display element comprising an organic layer consisting of a poshole transporting layer and a light emitting layer between anode and cathode, wherein said poshole transporting layer has a 3-layer structure, an intermediate layer of which contains I (Al-6 = H, Ph, naphthyl, etc.).

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:902553 CAPLUS

DOCUMENT NUMBER: 143:238366

TITLE: Organic electroluminescent device INVENTOR(S): Kato, Tetsuya; Kojima, Kazushige PATENT ASSIGNEE(S): Denso Corporation, Japan

SOURCE: U.S. Pat. Appl. Publ., 22 pp. CODEN: USXXCO

DOCUMENT TYPE: Patent. LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | API | PLICATION NO. | DATE | |
|------|--------------------|------|----------|-----|---------------|------|----------|
| | | | | | | | |
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| | US 7374830 | B2 | 20080520 | | | | |
| | JP 2005276802 | A | 20051006 | JP | 2004-302986 | | 20041018 |
| | KR 2006043123 | A | 20060515 | KR | 2005-14874 | | 20050223 |
| PRIO | RITY APPLN. INFO.: | | | | 2004-49462 | A | 20040225 |
| | | | | JP | 2004-302986 | A | 20041018 |
| | | | | | | | |

OTHER SOURCE(S): MARPAT 143:238366

ABSTRACT:

An organic EL device includes a pair of electrodes, a light emitter layer obtained by mixing a hole transporting material made of a tertiary amine compound, an electron transporting material and a light emitting additive. The tertiary amine compound constituting the hole transporting material has only one oxidation potential as measured by the cyclic voltammetry. A difference in ionization potential between the hole transporting material and electron transporting material of the light emitter laver is 0.35 eV or greater.

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:472504 CAPLUS

DOCUMENT NUMBER: 143:16219

TITLE: Organo-electronic functional material and use thereof

INVENTOR(S): Akashi, Nobutaka; Shirota, Yasuhiko PATENT ASSIGNEE(S): Bando Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | KIN | KIND DATE | | APPLICATION NO. | | | | | | DATE | | | | |
|------------|------|------|-------------|-----|-----------|-----------------|-----------------|------|-----|------|----------|------|------|-----|-----|------|-----|
| | | | A1 20050602 | | | WO 2004-JP17440 | | | | | 20041117 | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | KΕ, | KG, | KΡ, | KR, | ΚZ, | LC, | LK, |
| | | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | NO, |
| | | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | TJ, |
| | | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | AZ, | BY, | KG, | ΚZ, | MD, | RU, | ΤJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | LU, | MC, | NL, | PL, | PT, | RO, |
| | | SE, | SI, | SK, | TR, | BF, | BJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, |
| | | NE, | SN, | TD, | TG | | | | | | | | | | | | |
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| JP | 3881 | 996 | | | B2 | | 2007 | 0214 | | | | | | | | | |
| EP | 1696 | 709 | | | A1 | | 2006 | 0830 | | EP 2 | 004- | 7997 | 96 | | 2 | 0041 | 117 |
| | R: | DE, | FR, | GB | | | | | | | | | | | | | |

| CN 1883233 | A | 20061220 | CN | 2004-80034444 | | 20041117 |
|------------------------|----|----------|----|---------------|---|----------|
| US 20070066848 | A1 | 20070322 | US | 2006-580052 | | 20060519 |
| PRIORITY APPLN. INFO.: | | | JP | 2003-391882 | A | 20031121 |
| | | | JP | 2003-404721 | A | 20031203 |
| | | | WO | 2004-JP17440 | W | 20041117 |

ABSTRACT:

The invention relates to an organo-electronic functional material comprising a tris(arylamino) benzene of the general formula: (I) (wherein A and B are groups of the general formula: (II) (in which R is a Cl-C6 alkyl or a C5 or C6 cycloalkyl; and n is 0, 1, 2 or 3), which groups may be identical with or different from each other), and that in a cyclic voltagram, the organo-electronic functional material exhibits a deviation of peak current of 50-cyclic curve, measured at a sweep rate of 20 mV/s, falling within #10% of the average of peak current. This organo-electronic functional material has photo-electron conversion capability, being reversible in oxidation-reduction and by itself can form an amorphous film. Further, not only is the glass transition temperature thereof high but also even in repeated oxidation-reduction, the change of peak

current value is slight, ensuring stability. Therefore, the organo-electronic functional material can be appropriately used as, for example, a hole transport material in various electronic devices including organic electroluminescent devices.

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT